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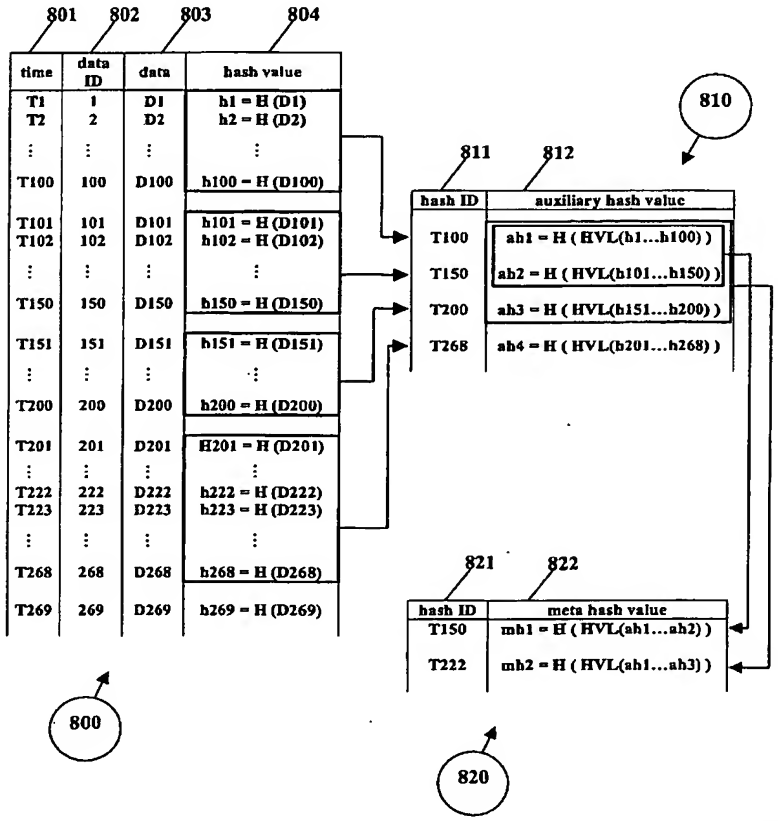
Published:
— *with international search report*

[Continued on next page]

(54) Title: METHODS AND SYSTEMS FOR PROVIDING A SECURE DATA DISTRIBUTION VIA PUBLIC NETWORKS



(57) Abstract: A server in a public key system stores a list of fingerprints of digital data. Another fingerprint is computed for this list of fingerprints and provided to a client terminal. A client terminal in a public key system obtains a list of fingerprints of digital data from a first source in this system. The client terminal further obtains a fingerprint for that list of fingerprints from a first source as well as from a second source for comparing both obtained fingerprints.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Int[redacted] Application No
PCT/[redacted] 03/07829

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L9/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	EP 0 940 945 A (AT & T CORP) 8 September 1999 (1999-09-08) column 1, line 12 - line 22 ---	1,2,23, 24
X A	US 6 304 974 B1 (SAMAR VIPIN) 16 October 2001 (2001-10-16) abstract column 4, line 34 - line 38 column 5, line 63 -column 7, line 37 figures 1-4 ---	1,2,12 13
A	US 2002/073310 A1 (IBM CORPORATION) 13 June 2002 (2002-06-13) abstract paragraph '0051! - paragraph '0053!; figure 4 --- -/--	1,2

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance

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Date of the actual completion of the international search	Date of mailing of the international search report
9 February 2004	23. 02. 2004

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Dujardin, C

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INTERNATIONAL SEARCH REPORT

Int[redacted] Application No
PCT/[redacted]03/07829

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 530 757 A (KRAWCZYK HUGO M) 25 June 1996 (1996-06-25) abstract figures 3-5	1,2
A	US 2001/032310 A1 (CORELLA FRANCISCO) 18 October 2001 (2001-10-18) page 5, paragraph 64 - paragraph 76; figures 1-3 page 8, paragraph 113 - paragraph 114; figure 12 page 14, paragraph 204 - paragraph 205; figure 20	1,2
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X	US 6 240 187 B1 (LEWIS TONY) 29 May 2001 (2001-05-29) abstract column 3, line 9 -column 4, line 48 column 5, line 13 -column 8, line 60 figures 1-7	41-72
X Y A	US 2002/126849 A1 (HESS PENNINGTON J ET AL) 12 September 2002 (2002-09-12) abstract paragraph '0017! - paragraph '0026! paragraph '0049! - paragraph '0059! paragraph '0159! - paragraph '0165!	41-72 112,113 116,117
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INTERNATIONAL SEARCH REPORT

Int[redacted] Application No
PCT/[redacted]03/07829

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/055395 A1 (VOGLER DEAN H) 27 December 2001 (2001-12-27) abstract paragraph '0011! - paragraph '0020! figures 1-4	41-44
A	WO 01 06702 A (POSTE ;FRANCE TELECOM (FR); REMERY PATRICK (FR); TRAORE JACQUES (F) 25 January 2001 (2001-01-25) abstract page 3, line 17 -page 19, last line	73-104
A	GRAY A: "ROUTER ENCRYPTION MADE EASY - THE HARD WAY" DATA COMMUNICATIONS, MCGRAW HILL. NEW YORK, US, vol. 26, no. 2, 1 February 1997 (1997-02-01), page 36,38 XP000659573 ISSN: 0363-6399 page 36, right-hand column, line 11 - line 35	83
X	DE 198 22 795 A (SIEMENS AG) 25 November 1999 (1999-11-25)	105-110, 115,119, 120,124, 125
Y	abstract	112,113
A	column 5, line 61 -column 7, line 23; figures 1A-1B	121,126, 127,130, 135-139

INTERNATIONAL SEARCH REPORT

application No.
PCT/EP 03/07829

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-40

   Computing/obtaining the fingerprint of a list of fingerprints of digitally encoded data in a public key system

2. Claims: 41-72

   Preventing cryptographic operations (encryption, decryption or signature) in a public key system by preventing the use of the private or of the public key of a first key pair and replacing the first key pair by a second key pair for executing the cryptographic operations.

3. Claims: 73-104

   Layered asymmetric encryption of digital data or layered digital signature of hashed digital data in a data distribution system

4. Claims: 105-139

   Using the hash value of a random token and of a fixed random value as a key for symmetric encryption/decryption

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/[redacted]03/07829

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